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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,649	01/27/2004	Younger Ahluwalia	03137.000006	4007

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EXAMINER	
CHANG, VICTOR S	

ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
10/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/766,649	AHLUWALIA ET AL.	
	Examiner	Art Unit	
	Victor S. Chang	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *2-6,8-12,14 and 15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,7,13 and 16-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Introduction

1. Applicants' declaration and arguments filed on 8/13/2007 have been entered. Claims 1, 7, 13 and 16-20 are active.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. In response to the arguments, the grounds of rejection have been updated as set forth below.

Rejections Based on Prior Art

3. Claims 1, 7, 13 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horner, Jr. et al. [US 6365533] in view of Martin et al. [US 5713974].

Horner's invention relates to a foamed facer for an insulation board. The facer comprises a fiber glass mat coated with a prefoamed composition comprising a thixotropic polymer latex (binder), a foam sustaining surfactant (surfactant generated microcells), a filler, such as clays, and flame retardant [col. 3, lines 1-14 and 45-46]. The foamed facer retains latent exothermic energy and has a higher potential heat capacity upon entering the laminator in making insulation board, thus lowering the lamination cure time and prolonging the generation of heat by acting as an insulator during curing in the post cure stack. One of the facer sheets of an insulation board may be a conventional facer, such as aluminum foil, fiber glass mat, etc. [col. 6, lines 3-10].

For claims 1, 7, 13 and 16-20, Horner lacks teachings of: 1) the foamed facer comprises prefabricated microcells; and 2) a metallic layer is adhered to the foamed facer. However, regarding 1), Martin's invention relates to exterior coatings containing insulating microspheres of glass or polymeric material for providing a high insulating value [abstract; col. 3, ll. 62-67]. The insulation coating contains an admixture of microspheres, pigments, latex and acrylic materials, etc. The insulation coatings may be used for roofs, etc. [col. 10, ll. 36-50]. It would have been obvious to one of ordinary skill in the art to modify Horner's coating composition by including microspheres (preformed microcells), as taught by Martin, motivated by the desire to improve the insulation value of the facer. Regarding 2), since Horner's teaches that both aluminum foil and fiber glass mat are conventional facers, it would have been obvious to one of ordinary skill in the art to substitute the fiber glass mat of the foamed facer with an aluminum foil, because the selection of a known equivalent material based on its suitability for its intended use supported a *prima facie* obviousness determination. See MPEP § 2144.07. In other words, it would have been obvious to one of ordinary skill in the art to alternatively coat the prefoamed composition onto an equivalent facer, such as an aluminum foil, and the alternative combination is reasonably expected to provided the same beneficial effects of the foamed coating.

Response to Argument

4. Since the Lynn et al. [US 6093481] and Morgan et al. [US 3062682] references are withdrawn, applicants' arguments directed to these references are moot.

Applicants argue [Remarks, pp. 4-7] that Horner teaches that a foamed facer on one side of the foam core, and when other facers such as an aluminum foil are used, they placed on the

other side of the foam core. However, since Horner's teaching shows that both aluminum foil and fiber glass mat, are conventional facers, it would have been obvious to one of ordinary skill in the art to substitute the fiber glass mat of the foamed facer with an aluminum foil, because the selection of a known equivalent material based on its suitability for its intended use supported a *prima facie* obviousness determination, and the alternative combination is reasonably expected to provided the same beneficial effects of the foamed coating.

Applicants argue [Remarks, pp. 7] that since Horner teaches that the uncoated fibers of the facer member be in direct contact with the core material to produce an insulation board with enhanced bonding strength between the facer member and the core material. However, a careful reading of Horner's disclosure [col. 5, ll. 4-8]:

> where the foamed coating on the facer is dried and/or cured, the bonding strength between the uncoated fibers and the core material in the resulting product is enhanced due to reduced penetration of the coating mixture into the mat by reason of its prefoamed state.

shows that Horner merely states that the mat is not fully penetrated by the coating mixture. Nowhere has Horner made any suggestion that substituting the fiber glass mat with an aluminum foil would render the beneficial effects of the foamed coating ineffective, nor any suggestion that a conventional facer such as aluminum foil would fail due to lack of adhesion to the foam core. To the contrary, Horner's teaching of aluminum foil as a facer suggests otherwise.

Applicants argue [Remarks, pp. 7] that Horner teaches that the foamed facer members eliminate the need for heat retaining members at the top and bottom of insulation boards (i.e. aluminum foil at the top and/or bottom). However, Horner's teaching regarding heat retaining members are related to the practice of manufacturers to place a layer of corrugated cardboard over both the top facer surface of the top board and under the bottom facer surface of the bottom

board in the stack, to retain exothermic heat and prevent subsequent delamination [col. 1, ll. 57-61], nowhere has Horner made any suggestion to eliminate aluminum foil from the top and bottom of the insulation board. Applicants' argument is misplaced.

Applicants argue [Remarks, pp. 7-8] that the aluminum facers are not desired because they cause disruption, delamination and warping and because they are costly. However, the delamination, warping and deterioration are related to wood laminates, since the present invention is not a wood laminate, and Horner has suggested the use of conventional facer including aluminum foil, applicants' arguments appear to be immaterial.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S. Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 7:00 am - 5:00 pm, Tuesday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Victor S Chang/
Primary Examiner, Art Unit 1794

10/17/2007